



Tunnel City Facility – Green Tier Annual Report for 2018

Introduction

The Covia Holdings Corporation – Tunnel City facility is a non-metallic mining operation producing high-quality silica sand for the hydraulic fracturing industry. Covia is a leader in the specialty minerals industry and has placed value in being a responsible company, an excellent environmental steward, and pillar of the communities in which it operates. The Tunnel City Facility operates under all applicable permits including but not limited to, Air, Waste, Water, and Reclamation Permits, as well as maintaining local agreements with Greenfield Township and Spring Association. The Tunnel City Facility has successfully stayed in compliance with all permits, plans, and agreements since opening. Covia was established with a merger between Unimin and Fairmount Santrol on June 1, 2018. Before that, the Tunnel City facility was owned by Unimin, a wholly owned subsidiary of Sibelco, which is a global industrial minerals company. Sibelco operates worldwide, while Unimin had operated in Wisconsin since 1983.

Construction of the Tunnel City facility began in November 2011 and was completed in December 2013. Before applying to the Wisconsin Green Tier Program, the Tunnel City facility was an active member of the Wildlife Habitat Council (WHC), a nonprofit organization that encourages its members to exceed expectations and requirements, and to establish programs taking advantage of available resources. Covia Tunnel City continues its involvement with WHC, as well as partnerships with local conservation groups, and state and local agencies. In 2018 the Tunnel City WHC program was rectified by WHC receiving Gold Status. Gold Status is the highest tier certification offered by WHC.

Green Tier Certification

Tunnel City achieved Green Tier status in February 2014. Part of the Green Tier achievement process was finalizing an Environmental Management System (EMS) and having the EMS audited for compliance by an approved third-party auditor.

The EMS assists in identifying potential environmental impacts of the operation, focusing on continuous improvement and a “plan-do-check-act” approach to problem-solving. Yearly measurable goals are also determined as part of the EMS to support sustainable and environmentally conscious operations.

The third-year external audit was conducted on April 11, 2018. The review demonstrated that Covia conforms with the Green Tier standards. One administrative non-conformance was found and corrected before the end of the review. There are no outstanding non-conformances from the review.

Community Involvement

Covia emphasizes supporting the local community. Donating locally directly supports the people surrounding the operation. It provides the most significant impact to those immediately around the Covia property. In 2018 Covia contributed almost \$30,000 to local organizations. Nationally, Covia became a Heritage Sponsor for Ducks Unlimited (DU), investing in their conservation efforts. Locally, Tunnel City committed \$10,000 annually to the DU Big River Initiative, supporting waterfowl conservation along the Mississippi River and its tributaries.

Local organizations Covia donated equipment or financial contributions to in 2018:

- Ducks Unlimited
- Chamber of Commerce
- IMWRF (Fort McCoy)
- Monroe County Ag – Monroe County Fair
- Monroe County Ag – Super National Tractor Pull
- Remembering Jesse Parker Inc. – 5k Run
- Tomah Baseball Club
- Neighbor for Neighbor Food Pantry
- North American Squirrel Association
- Tomah/Sparta Speedway
- Tomah Sports Boosters Club
- Tomah Area Fire Department

2018 Objectives and Targets

Goals during 2018 focused on energy reduction, environmental performance, and stakeholder engagement.

Energy Reduction Goals

- Decrease dryer therms/ton by decreasing sand moisture (**Not Applicable Due To Market Demand Reducing Production**)
- Purchase drone to eliminate plant aerial flyovers to reduce fuel consumption (**Achieved**)
- Reduce electrical consumption by optimizing pumping systems (**Achieved**)
- Reduce electrical consumption by constructing silo chutes to bypass belt conveyors (**Not Applicable Due To Market Demand Reducing Production**)

Environmental Performance Goals

- Collect native seed from the site to include in the future reclamation seed mix (**Poor Seed Year**)
- Repurpose trees from cleared land (**Achieved**)
- Extend the geomorphic reclamation plan to coincide with the five-year mine plan (**Achieved**)

Additional Environmental Performance

- Bluebirds
- Karner Blue butterfly and Lupine monitoring surveys six times every year
- Wildflower seed collections for disbursement in reclaimed areas
- Pollinator garden management
- Conduct a survey to update species list of plants and animals on the property
- Ensure house demolitions follow environmental protocols

Stakeholder Engagement

- Community Garden – Maintain community garden
- Bat counts
- Highway Cleanup – Conduct cleanup three times a year
- Networking Before 9
- Boys & Girls Club Nature Tour
- Storm Cleanup
- Intern Program

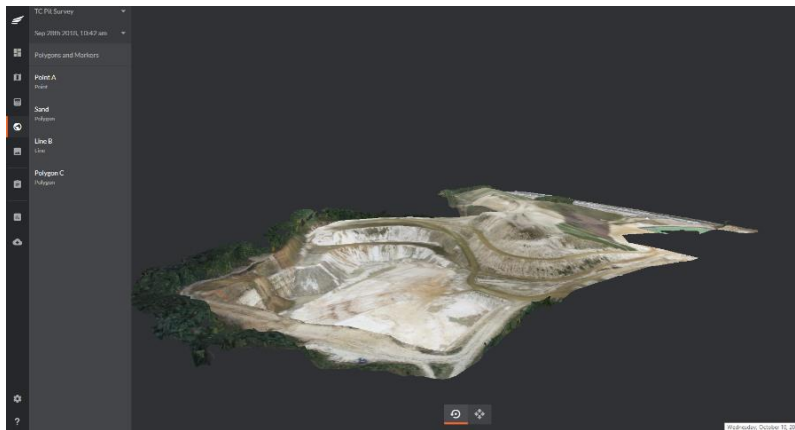
Energy Reduction

Decrease dryer therms/ton by decreasing sand moisture

During 2018 Tunnel City set the goal of reducing dryer fuel usage by reducing the moisture percentage of the sand passing through the dryers. In 2017, and into the first half of 2018, the market demand for sand had moved to finer products. A combination of finer products and reduced time to drain these products on the wet slab has increased the present moisture of material passing through the dryers. To combat this, Tunnel City explored ways to improve water drainage, including chemical treatments. Increased moisture content means dryers need to run hotter, increasing fuel usage. Market demands shifted in the latter half of 2018. This demand shift has eliminated the need for any dewatering solution. Market demand will need to increase to justify the use of a dewatering agent to improve slab drainage. Until then, this practice has been tabled.

Purchase drone to eliminate plant aerial flyovers to reduce fuel consumption

Covia's 2018 goal of purchasing a drone to assist with surveys was successful. Before the drone purchase, Tunnel City needed to survey areas manually. Manually surveying is slow and tedious. In order to maintain safety, manually surveying can also be less accurate. To maintain safety, the surveyor needs to maintain safe distances from equipment, fall hazards, and wall hazards. To do this, the surveyor assumes an offset. Furthermore, it is impossible to capture every rise and depression when manually surveying. Utilizing a drone or similar technology eliminates any of these concerns while providing you a more accurate surface. With more precise information, Tunnel City can make better-educated plans and decisions. This drone not only saves labor hours but also eliminates the need to annually hire a vendor to fly the mine site, substantially reducing fuel usage. Certain parts of the mine, specifically reclaimed land, can be challenging to access. Because of that, before the drone, small reclamation issues could go unnoticed until they were much larger, time-consuming, and expensive to restore. The data has been used to pinpoint hard to reach environmental concerns much sooner, especially following any storm event. By doing so, our efforts can be focused more strategically. The ease of data collection has increased how often, data is collected. This increase in data reduces rework, further reducing emissions. The purchase of this drone provides environmental, safety, and production improvements from how we historically operated.



Reduce electrical consumption by optimizing pumping systems

The water balance between tailings, the plant, and the pond had not traditionally been monitored closely by our operators. Pumps were commonly left running when they were not needed using unneeded electricity. In 2018 Covia investigated how to control the pumps/water balance better to ensure pumps aren't unnecessarily running. With a heightened focus on pump use by upper management, both the supervisors and staff improved their recognition of unneeded pumps running. Shutdown checklists have been constructed to ensure this is done correctly. For example, when looking at two of our major pumps in the wet plant (PU2201 and PU2202) that send a slurry to the drain slab cyclones, usage was down 18.7 % in 2018 from 2017. More impressive, usage decreased by 37.4% in the second half of 2018 compared to the first 6 months. This process is ongoing. There continues to be room for improvement in water usage. Both supervisors and staff will need further training as well as more in-depth checklists to ensure everything is done per procedure.

Reduce electrical consumption by constructing silo chutes to bypass belt conveyors

Currently, when unneeded sand in the silos is dumped, it had to be conducted through the loadout chutes. Operationally this takes away the capacity to load cars while sand is being dumped. By adding a bypass chute loadout could continue to operate while also dumping unneeded sand. By doing this, energy savings would occur, because loadout would not need to run their belts or bucket elevators while dumping sand. Currently, Tunnel City has a design request in with Covia's corporate engineering team. Market demands shifted in 2018, making the implementation of this no longer feasible. Because of that, Tunnel City will table any construction until market demands adjust.

Environmental Performance Goals

Collect native seed from the site to include in the future reclamation seed mix

To improve future reclamation areas, Covia utilizes past reclamation. Unimin has reclaimed over 104 acres of land, and much of it is 6+ years old. The reclamation areas are well established and have great plant diversity. Covia took advantage of these established areas by collecting Lupine seed in 2017. Lupine is a key component of creating a Karner Blue Butterfly habitat. The lupine seed is expensive and often difficult to purchase. By collecting Lupine seed at the site, it gives Covia a known seed supply for the following year and provides a known genotype that grows well at Tunnel City. Lupine seed harvest season lasts for only a couple of weeks a year, meaning there is a small seed collection window. In 2017 staff handpicked Lupine seed pods then allowed them to dry. Once dried, the seed is hand sorted. After the seed was cleaned, Unimin had over 4 pounds of pure native seed to use on future reclamation areas. 2017 was such a success that Tunnel City wanted to attempt to collect wildflower seeds again in 2018. Unfortunately, Tunnel City had a poor season in 2018 for seed collection. This can mostly be attributed to a high collection rate from 2017, thus not allowing enough seed population for the necessary new growth. Because of this Tunnel City chose to take time off from seed collection to allow time for the population time to thrive.



Repurpose trees from cleared land

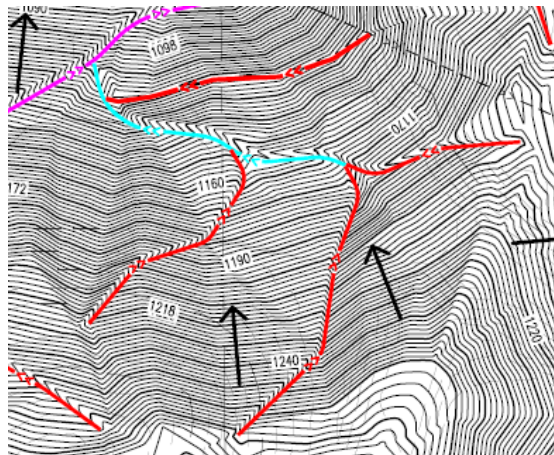
The Tunnel City mine operates in a heavily forested area. As the mine progresses, clearing trees is necessary. During tree clearing, trees not deemed as harvestable are chipped and left on site. After the last clearing Tunnel City was able to donate a large quantity of wood chips to a local welding and firewood business. These chips are used in the firewood drying kiln. By drying their firewood in the kiln, it allows them to certify their wood as Wisconsin Certified Kiln Dried Firewood. This process ensures that the wood is dry for burning, but more

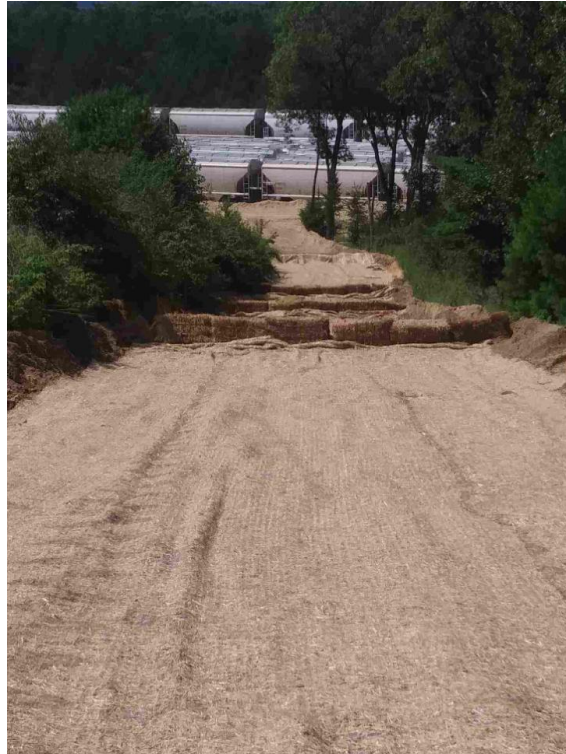
importantly, this ensures that the wood is mold and pests free. This is very important when trying to reduce the spread of devastating pest from one area to another. Tunnel City has been able to supply these chips since the spring of 2017, and the local business continues to use the Tunnel City wood chips successfully. In the future Tunnel City would like to continue to look at ways to repurpose trees from cleared land. The facility has plans to utilize chips and mulch for sediment control in drainages in conjunction with the existing Stormwater Pollution and Prevention Plan. Tunnel City owns a tree spade and would like to explore the success of transplanting trees onto reclamation prior to removal and stripping.

Extend the geomorphic reclamation plan to coincide with the five-year mine plan

Recognizing the fact that standard reclamation techniques utilizing terraces and down drains aren't sustainable, Covia began to research newer reclamation techniques. Covia discovered that around the mining industry, progressive sites are using a technique called geomorphic reclamation. Geomorphic reclamation creates a final surface with natural looking waterways. These waterways not only appear natural but are designed to function as natural channels. Using the final contour elevations, soil type, and regional environmental inputs, individual channels are uniquely designed. The channels are designed to have water carrying capacity, so they won't erode and provide a long-term functioning landscape. Covia utilized both in house knowledge as well as third-party engineering firms to ensure success. Covia is designing all future reclamation areas at Tunnel City using these principles.

Covia recognizes that it is important to maintain existing reclamation until the site has proven stability. In 2017 Covia identified areas of improvement in reclaimed areas. During the spring of 2018, a mitigation plan was established to correct some of these areas. Problem areas were re-sloped, bale checks were installed, rock checks were positioned, erosion matting was staked in, and all the areas were re-seeded. The fall of 2018 resulted in historic rains and flooding in southern Wisconsin. These storms developed more areas of improvement. Tunnel City is currently working with a third party engineering firm to establish a plan to help prevent future problems from occurring during significant precipitation events. Tunnel City reclaimed and seeded 10 new acres during 2018. There are currently a total of 104 reclaimed acres on the Covia Tunnel City property.





Additional Environmental Performance

Bluebirds

To support Wisconsin's songbird population, Unimin developed a bluebird trail on site. Tunnel City consulted with the Bluebird Restoration Association of Wisconsin (BRAW) to ensure the greatest chance of success with this trail. Information about BRAW can be found at <http://www.braw.org/>. Bluebird boxes were constructed and placed in the bluebirds preferred habitat, areas with short grass and limited tree cover. Sixteen boxes were originally placed on the trail with five more added in 2016. Seventy-nine song birds fledged in the first year, 89 in 2016, 127 in 2017, and 43 during 2018. The lower numbers in 2018 can be attributed to a late spring large snow storm in April. This late storm had a detrimental effect on the bluebird breeding at Tunnel City. It pushed the birds breeding season later into the year, causing the number of fledged chicks in 2018 to plunge from previous years. Tunnel City staff continues to monitor nesting boxes to ensure they're monitored and maintained correctly during breeding months. Diligent monitoring ensures the songbird chicks have the best chance in fledging and supporting the local population. In addition to the nesting boxes presently on Covia's site, Covia will continue to add boxes on newly reclaimed areas as the reclamation progresses.



Karner Blue Butterfly and Lupine monitoring surveys six times every year

During 2018, Covia continued to actively reclaim the Tunnel City site as mining advanced. 2.15 acres of KBB habitat was originally disturbed. To date, Covia has reclaimed 104 acres of land, restoring the land back to the native Pine Barren landscape and Karner Blue Butterfly habitat. A reclamation seed mix is planted specifically to support Karner Butterflies. In 2017 Covia took advantage of their established reclamation by collecting Lupine seed. Lupine is a key component of creating a Karner Blue Butterfly habitat. The lupine seed is expensive and often difficult to purchase. By collecting seed at the site, it gives Covia a known seed supply for the following year and provides a known genotype that grows well at Tunnel City. Also, over 9,500 trees were planted to support the advancement of pine barren habitat. Covia has greatly expanded potential KBB habitat at Tunnel City. Proof that the reclamation efforts are working are seen with the return of the Karner Blue Butterfly. Covia continues to perform KBB monitoring and Lupine surveys at least 6 times per year. Because of all of this work, Lupine continues to thrive on Tunnel City reclamation. This, in turn, has had a direct effect on increasing KBB population at Tunnel City. The number of confirmed sightings continued to increase from 2 in 2014, to 8 in 2015, to 9 in 2016, to 30 during 2017, and 87 in 2018!





Pollinator garden management

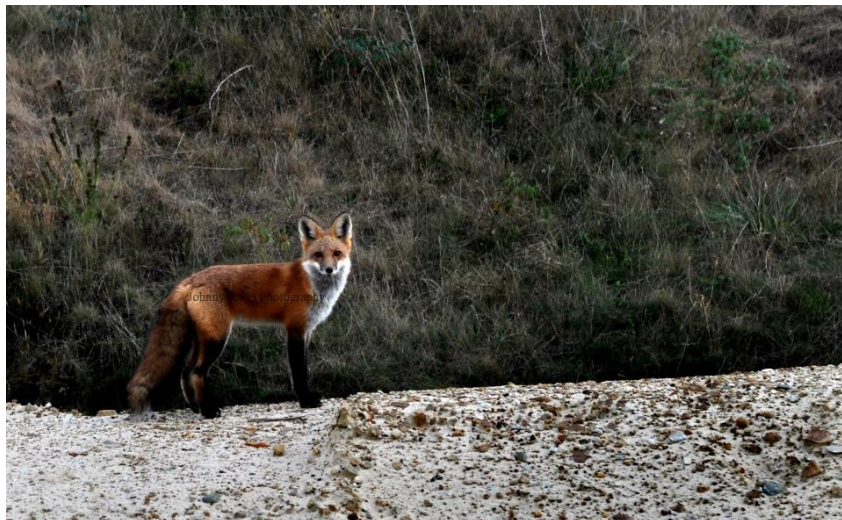
Tunnel City started to establish a pollinator garden in the summer of 2012. This garden has been fundamental in the success of Lupine, and thus the Karner Blue Butterfly on the mine site. With the established Wildlife At Work project within Covia's Wildlife Habitat Council agreement, Tunnel City's pollinator garden has been able to flourish. The main focal points for 2018 were invasive species management and beehive success. The pollinator garden adjoins pine barren KBB habitat that is heavily invaded by honeysuckle and buckthorn. To ensure continued pollinator garden success, Covia continues to implement the noxious weed plan. Covia cuts and treats both invasive species. This allows native plants to respond as the canopy opens up. This treatment also ensures that these species don't spread into the garden area. Tunnel City continues to run beehives on the property. To guarantee bee success, it is important to maintain clear access to the hive as well as food and water sources. Along with butterflies, bees play an important role in pollination. Having a beehive on site increases the chances of adequate pollination of the flowering species within the garden. This increases the chance of Lupine success, thus increasing the success of the Karner Blue Butterfly on Tunnel City's property.





Conduct a survey to update species list of plants and animals on property

Covia conducts a species survey of the property yearly. It then reviews the current list and updates it as necessary. Tunnel City renewed its Wildlife Habitat Council membership in 2018. With this renewal, a more in-depth scoring was also performed of each area. This helped better define the success of certain plant and animal species. Tunnel City has over 75 observed plant and animal species on site. Most of these species thrive because of the work put in by our staff to ensure the habitat is correct for the specific plants and animals that live there.



Ensure house demolitions follow environmental protocols

One of the properties that Covia had acquired during land acquisitions had been deemed necessary for demolition. Covia felt this was in the best interest of neighboring properties. All materials were properly handled and disposed of offsite. The void from the basement was filled in with backfill from the mine site. This substantially reduced fuel usage from having to get backfill somewhere else. The lot was then top soiled and seeded.

Stakeholder Engagement

Covia prides itself with its positive stakeholder engagement. Over the year, Covia provided several tours at Tunnel City. Covia provides an annual open house to the residence of the Greenfield Township, providing an opportunity for the local community to see the operation. Twenty-nine members of the township attended in 2018. Covia also provides an annual status report to the township, sharing production and environmental updates from the previous year.



Additionally, Covia provided tours to WI-DNR and soil & water conservation staff from around the state of Wisconsin.

Community Garden

On the north side of Tunnel City is a small subdivision, Whitetail Estates. Covia not only built the garden for the residents, but they also installed an automatic sprinkler system. 2018 was another successful year at the garden. Residents planted various vegetables including tomatoes, pumpkins, corn, beans, lettuce, kale, and peppers.



Bat counts

During the initial site assessment, Covia staff recognized the abandoned railroad tunnel on site was an active bat hibernaculum. Covia worked with the WI-DNR to restrict human access to the tunnel by installing bat-friendly gates so bats could move freely in and out of the tunnel. After installing the gates, the number of bats found using the hibernaculum each winter has increased. Covia continues to provide the WI-DNR access to the tunnel so they can monitor the spread of white-nose syndrome. Unfortunately, during the winter of 2017 monitoring, the WI-DNR did have a positive occurrence of the white-nose syndrome from the bats inside the tunnel. In 2018 numbers continue to stay consistent, but they are expected to drop off as white-nose syndrome starts to affect the populations.

Covia Tunnel City monitors bat houses monthly on 5 locations during non-hibernating months. These bat houses are in place to provide critical roosting locations, especially for females rearing their young. Unfortunately, at this time, no bats have chosen to utilize the furnished houses.





Highway Cleanup – Conducted 3 times per year

Three times a year, Covia staff conducts a cleanup through the adopt-a-highway program. Covia cleans a portion of Highway 21 west of Tomah. In 2018 employees filled up multiple pickup beds with trash each time they performed the cleanup.





Networking Before 9

The Tomah Chamber holds networking meetings at different local area businesses. This provides the business the opportunity to showcase what they do and give them a little exposure to the other chamber members. In 2018 Tunnel City was the host for one of the meetings at the front office, allowing the facility to showcase its history as well as recent activities.



Boys & Girls Club Nature Tour

Covia hosted a nature tour for the Tomah Boys and Girls Club in 2018. This provided the children and their chaperones an opportunity to see the Steve Witt Memorial trail. While walking the trail, the kids were exposed to the Tunnel City reclamation, local area history, geology, mining, wildlife, and plant communities from the kiosks along the trail. Once the tour was done, each child made a Mason Bee Nest. Tunnel City found the plans for this idea on <https://friendsoftheearth.uk/bees/make-a-bee-house>. A Mason Bee Nest attracts and provides native bees and insects, habitat to lay eggs. Native Bees are an important part of the ecosystem and excellent pollinators. By creating their own Mason Bee Nest, the kids learned about the importance of solitary bees in the environment and could take home nest to provide a safe habitat for bees in their back yard. It was an excellent opportunity to share the other side of mining with local area children.





Storm Cleanup

Covia recognizes the importance of the neighbors surrounding the site. Seasonal storms periodically cause damage to neighbors' properties, often from falling trees and erosion from heavy rains. When storm damage occurs, Covia tries to lend a hand providing equipment and manpower to assist with cleanup and repairs. Tunnel City staff helps property owners remove fallen trees and with dirt work when neighbors need assistance. Heavy snowfalls can also be a challenge to the surrounding community due to its rural nature. Covia has a fleet of plow trucks and will frequently assist the neighbors with snow removal. Covia often aids Greenfield Township. In 2017 multiple plugged culverts were identified by the Greenfield township. Covia assisted the township in clearing these out with their water truck. Tunnel City will continue to communicate with township members to help identify areas where they can lend a hand.

Intern Program

Covia continues to invest in the future workforce by having an intern program. Covia hires interns from local colleges. By hiring interns, Covia gives students real-world, practical experience. Covia hired two interns in 2018. These interns at Tunnel City assisted in every aspect of the mine. Their main focus was on improving the maintenance department from a technology standpoint, but they assisted with environmental compliance, quality, mining, and production. They learned how the plant operates and even got the chance to operate heavy equipment.

2019 Objectives & Goals

The following projects were selected targeting areas with the potential to have the highest significant impact, as identified in the Significant Aspects Worksheet.

Environmental Improvement

- **Add at least 2 bluebird houses in the Witt Dump**
- **Repurpose trees from cleared land**
- **Reduce bone yard total area by 25%**

Reduce Energy Usage

- **Install a dump pit to reduce fuel usage necessary for dumping rail cars**
- **Ensure 90% compliance of reduced electrical usage by shutting off all unnecessary equipment, including the lights, when not running by performing random audits**
- **Ensure 100% of pickups purchased after 2017 have idle timers installed**
- **Remove all propane heaters along the beltline and replace them with electrical heaters**
- **Remove 25% less overburden per ton by mining deeper**

Conclusion

As a leader in Industrial Sand Mining, Covia is a believer in great people and innovation. The Tunnel City plant is no exception. Tunnel City was built to the highest standards. Tunnel City continues to excel and exceed environmental standards. Our relationships with local businesses, neighbors, and government agencies prove this. The Green Tier program, along with the sites' EMS, always push Covia staff to be innovative and increasingly creative to develop new projects. These projects help reduce Covia's impact on the local area and create a long-term sustainable facility.